AMENDMENTS TO THE CLAIMS:

1.(currently amended): A path setup device for setting up a label switched path in a label switching network including a plurality of routers, comprising:

a decision device, when a label request is received, deciding whether there exists a label switched path which has already been set up and which corresponds to a path requested in has the same path as a path corresponding to the label request; [[and]]

a label allocation device, when the set-up label switched path exists, allocating [[the same]] another label, for the label request, which is the same as a label of the set-up label switched path for the label request;

a different-label allocation device, when a request to release the other label is received from a router notified of said other label, performing processing for allocating a label different from the label of the set-up label switched path for the label request requesting a path corresponding to the set-up label switched path; and

a path learning device automatically learning a set-up label switched path that cannot be allocated another label which is the same as a label for the set-up label switched path and prohibiting allocation of such another label for the learned path, and wherein

when a request to release another label has been received, the different-label allocation device notifies the path learning device of the path and the path learning device learns the notified path as a path that cannot be allocated another label.

2.(currently amended): The path setup device according to claim 1, wherein the decision device decides that the path corresponding to the label request is the same as the set-up label switched path when the path corresponding to the label request and the set-up label switched

3

path coincide with each other in [[the]] a combination of an ingress router and an egress router and routers located between the ingress router and the egress router.

3.(currently amended): The path setup device according to claim 1, further comprising a label reallocation device performing label reallocation processing, and wherein the label allocation device allocates other labels which are the same [[label]] for a plurality of forwarding equivalence classes, and when a change has occurred in the label switching network for one of the forwarding equivalence classes, the label reallocation device temporarily releases a label allocated to a path between an ingress router and an egress router and performs processing for re-performing label allocation between the ingress router and the egress router.

4-5.(cancelled)

6.(currently amended) A computer-readable recording medium recorded with a program for setting up a label switched path in a label switching network including a plurality of routers, the program causing a computer to perform:

when a label request is received, deciding whether there exists a label switched path which has already been set up and which corresponds to a path requested in has the same path as a path corresponding to the label request; [[and]]

when the set-up label switched path exists, allocating the same another label, for the label request, which is the same as a label of the set-up label switched path for the label request;

when a request to release the other label is received from a router notified of said other label, performing processing for allocating a label different from the label of the set-up

4

label switched path for the label request having a path corresponding to the set-up label switched path; and

automatically learning a set-up label switched path that cannot be allocated another label which is the same as a label for the set-up label switched path and prohibiting allocation of such another label for the learned path, and when a request to release the other label has been received, notifying the path and learning the notified path as a path that cannot be allocated the same label.

7.(currently amended) A path setup method for setting up a label switched path in a label switching network including a plurality of routers, comprising:

when a label request is received, deciding whether there exists a label switched path which has already been set up and which corresponds to a path requested in has the same path as a path corresponding to the label request;

when the set-up label switched path exists, allocating the same another label, for the label request, which is the same as a label of the set-up label switched path for the label request; [[and]]

when the set-up label switched path does not exist, allocating a new label for the label request;

when a request to release the other label is received from a router notified of said other label, performing processing for allocating a label different from the label of the set-up label switched path for the label request having a path corresponding to the set-up label switched path; and

automatically learning a set-up label switched path that cannot be allocated

another label which is the same as a label for the set-up label switched path and prohibiting

allocation of such another label for the learned path, and when a request to release the other label

has been received, notifying the path and learning the notified path as a path that cannot be

allocated the same label.

8.(currently amended): A path setup device for setting up a label switched path in

a label switching network including a plurality of routers, comprising:

decision means for, when a label request is received, deciding whether there exists

a label switched path which has already been set up and which corresponds to a path requested in

~~has the same path as a path corresponding to~~ the label request; [[and]]

label allocation means for, when the set-up label switched path exists, allocating

~~the same~~ another label, for the label request, which is the same as a label of the set-up label

switched path ~~for the label request~~;

a different-label allocation means for, when a request to release the other label is

received from a router notified of said other label, performing processing for allocating a label

different from the label of the set-up label switched path for a label request corresponding to a

same path; and

a path learning means for automatically learning a path that cannot be allocated a

another label and prohibiting allocation of other labels for the learned path, and when a request

to release another label has been received, the different-label allocation means notifies the path

learning means of the path and the path learning means learns the notified path as a path that

cannot be allocated another label.

6